

Docket No. 220102US2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Masaaki ADACHI

SERIAL NO: NEW APPLICATION

FILED: HEREWITH

FOR: PROFILE MEASURING METHOD AND MEASUREMENT APPARATUS USING INTERFERENCE OF LIGHT

GAU:

EXAMINER:

11046 U.S. PTO
10/085082
03/01/02

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Applicant(s) wish to disclose the following information.

#3 IDS
M. Braunsen
4/11/02

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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STATEMENT OF RELEVANCY

Reference AV (Akiko HARASAKI, et al.) on form PTO-1449

This reference uses a phase shifting process wherein the value of α is $270^\circ (=2\pi - \pi/2)$. The present invention is distinguished from the reference in that it uses single-wavelength light.

Reference AW (Leslie DECK, et al.) on form PTO-1449

This reference discloses a known method using techniques in wide use. As can be seen in FIG. 4 on page 7336, the phase shift is $2\pi/4 = \pi/2$. In this point, the present invention is distinguished from the reference in this point.

Reference AX (Yeou-Yen CHENG, et al.) on form PTO-1449

This reference discloses a shape-measuring method using two-wavelength phase shifting. The reference does not disclose the use of a flash light source or a double-exposure camera. In addition, the reference does not show high-speed measurement (the phase shift is $\pi/2$ or thereabouts).

Reference AY (Byron S. LEE, et al.) on form PTO-1449

This reference discloses a shape-measuring method using vertical scanning. Since the reference does not show one-wavelength phase shifting, it differs from the present invention.

Reference AZ (Masaaki ADACHI, et al.) on form PTO-1449

This document is an abstract of the treatise reported at an academic meeting. It discloses technology based on which the present invention was made.